

REMARKS

5 The Examiner is thanked for the thorough examination and search of the subject.

Claims 1-11, 13, 15-21, 23-35, 37-44, and 46-50 are pending, wherein claims 1-11, 13, 15-21, 23-35, 37-44, and 46-50 are currently amended, and claims 12, 14, 22, 36 and 45 are canceled.

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It is believed that the currently amended claims 27-29 are supported in FIGS. 2D and 4 and the related description within the species applicants elected for response to the Restriction Requirement mailed on Aug. 8, 2005.

15 1. Request for Continued Examination:

The applicants respectfully request continued examination of the above-indicated application as per 37 CFR 1.114.

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2. Response to Claim Rejections under 35 U.S.C. 102 and 103:

Applicants respectfully traverse the rejections for at least the reasons set forth below.

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Response to Claims 1-11, 13, 15-21 and 23-26

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As currently amended, independent claim 1 is recited below:

1. A circuitry component comprising:
 - a semiconductor substrate;
 - a metallization structure over said semiconductor substrate;

a passivation layer over said metallization structure, wherein an opening in said passivation layer exposes a top surface of said metallization structure; and

5 a patterned circuit layer connected to said top surface, wherein said patterned circuit layer comprises a first portion used to have a bump formed thereover and a second portion used to be tested thereto.

Reconsideration of Claims 1, 4, 5, 8-11, 13, 17-20, 25 and 26 rejected under 35
10 *U.S.C. 103(a) as being unpatentable over Elenius et al. (US6,287,893) in view of Kim (US5,854,513), of Claims 2 and 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Elenius et al. (US6,287,893) in view of Kim (US5,854,513) further in view of Sato et al. (US4,051,508), of Claims 6 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Elenius et al. (US6,287,893) in view of Kim (US5,854,513)*
15 *further in view of Lee (US20040036170), of Claims 15 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Elenius et al. (US6,287,893) in view of Kim (US5,854,513) further in view of Kitayama et al. (US5,646,439), and of Claim 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Elenius et al. (US6,287,893) in view of Kim (US5,854,513) further in view of Harper is requested*
20 *based on the following remarks.*

Applicants respectfully assert that the electronic component claimed in claim 1 patentably distinguishes over Elenius et al. (US6,287,893) in view of Kim (US5,854,513).

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Elenius et al. teach a circuitry component comprising a semiconductor substrate 14, a conductive bond pad 18 over the semiconductor substrate 14 and a passivation layer 22. An opening in the passivation layer 22 exposes a top surface of the bond pad 18. The circuitry component further comprises a patterned circuit layer 30
30 connected to the top surface of the bond pad 18, wherein the patterned circuit layer 30 comprises a portion used to have a bump formed thereover. ~ See FIG 2 ~
However, Elenius et al. fail to teach, hint or suggest the patterned circuit layer 30 may

comprise another portion used to be tested thereto.

Kim teaches that a circuitry component comprises a patterned circuit layer 22 and 23 comprising a first portion used to have a bump 27 formed thereover and a
5 second portion used to be tested thereto. The patterned circuit layer 22 and 23 is under a passivation layer 24, multiple openings in the passivation layer 24 exposing the first and second portions of the patterned circuit layer 22 and 23. However, Kim fails to teach, hint or suggest the subject matter that "the patterned circuit layer 22 and 23 can be connected to a top surface of a metallization structure exposed by an
10 opening in the passivation layer 24".

The Examiner considers that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a second portion used to be tested thereto as taught by Kim".

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Applicants respectfully traverse the Examiner's opinions because, even in the combination of the teachings by Elenius et al. and Kim, no one should think the subject matter that "a patterned circuit layer connected to a top surface of a metallization structure exposed by an opening in a passivation layer may have a
20 portion used to be tested thereto", which is not taught by Elenius et al. or Kim. Therefore, applicants consider that claim 1 should be patentable because no one teaches the subject matter that "the patterned circuit layer connected to a top surface of a metallization structure exposed by an opening in a passivation layer may have a first portion used to have a bump formed thereover and a second portion used to be
25 tested thereto".

For at least the foregoing reasons, applicants respectfully submit independent claim 1 patently distinguishes over the prior art references, and should be allowed. For at least the same reasons, dependent claims 2-11, 13, 15-21 and 23-26 patently
30 define over the prior art as well.

Response to Claims 27-35 and 37-44

As currently amended, independent claim 27 is recited below:

27. A circuitry component comprising:

- 5 a semiconductor substrate;
- a metallization structure over said semiconductor substrate;
- a passivation layer over said metallization structure, wherein an opening in said passivation layer exposes a top surface of said metallization structure; and
- 10 a patterned circuit layer connected to said top surface, wherein said patterned circuit layer comprises a first metal layer and a second metal layer over said first metal layer, wherein said second metal layer has a first portion used to have a bump formed thereover and a second portion used to be wirebonded thereto.

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Reconsideration of Claims 27-29, 32-34, 40-42 and 44 rejected under 35 U.S.C. 102(e) as being anticipated by Lam et al. (US6,511,901), of Claims 30, 31 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Lam et al. (US6,511,901)

20 *in view of Elenius et al. (US6,287,893), of Claims 38 and 39 rejected under 35 U.S.C. 103(a) as being unpatentable over Lam et al. (US6,511,901) in view of Kitayama et al. (US5,646,439), and of Claim 43 rejected under 35 U.S.C. 103(a) as being unpatentable over Lam et al. (US6,511,901) in view of Kim (US5,854,513) is requested based on the following remarks.*

25 Applicants respectfully assert that the electronic component claimed in claim 27 patentably distinguishes over Lam et al. (US6,511,901).

 Lam et al. teach a circuitry component comprising a semiconductor substrate

30 104, a bond pad 102 over the semiconductor substrate 104 and a passivation layer 202. An opening in the passivation layer 202 exposes a top surface of the bond pad 102. The circuitry component further comprises a patterned circuit layer 204, 206 and 208

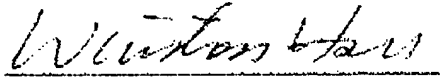
connected to the top surface of the bond pad 102, wherein the patterned circuit layer 204, 206 and 208 comprises a topmost metal layer 208 having a portion used to have a bump formed thereover and a bottommost metal layer 204 having a portion used to be wirebonded thereto. ~ See FIG 2I ~ However, Lam et al. fail to teach, hint or suggest the patterned circuit layer 204, 206 and 208 may comprise a metal layer, not a bottommost metal layer 204, having a portion used to be wirebonded thereto. Therefore, the subject matter that “a patterned circuit layer connected to a top surface of a metallization structure exposed by an opening in a passivation layer comprises a first metal layer and a second metal layer over said first metal layer, wherein said second metal layer has a first portion used to have a bump formed thereover and a second portion used to be wirebonded thereto”, claimed in claim 27, is not taught by Lam et al.

For at least the foregoing reasons, applicants respectfully submit independent claim 27 patently distinguishes over the prior art references, and should be allowed. For at least the same reasons, dependent claims 28-35 and 37-44 patently define over the prior art as well.

CONCLUSION

Some or all of the pending claims are believed to be in condition for allowance. Accordingly, allowance of the claims and the application as a whole are respectfully requested.

Sincerely yours,



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- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)